

**Method for Increasing Peripheral Component Interconnect (PCI) Bus  
Throughput Via a Bridge for Memory Read Transfers via Dynamic  
Variable Prefetch**

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Abstract

10 The invention provides a high speed PCI-to-PCI bridge structure and  
method of use thereof. One embodiment provides a first bus (240) adapted  
to facilitate data transfer, a second bus (215) adapted to facilitate data  
transfer, and a bridge (350) that couples the first bus to the second bus. The  
bridge is adapted to perform memory read, memory read line, and memory  
read multiple commands (from the first bus to the second bus).  
Advantageously, the bridge (350) responds to the memory read multiple  
15 command differently than either the memory read or the memory read line  
command.